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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,579	10/17/2003	Junichi Hayashi	00862.023270	8939
5514 7590 07/24/2007 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER	
			MORAN, RANDAL D	
NEW TORK, NT 10112			ART UNIT	PAPER NUMBER
			2135	
			MAIL DATE	DELIVERY MODE
			07/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
	10/686,579	HAYASHI, JUNICHI				
Office Action Summary	Examiner	Art Unit				
	Randal D. Moran	2135				
The MAILING DATE of this communication ap Period for Reply	opears on the cover sheet w	vith the correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING ID.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period.  - Failure to reply within the set or extended period for reply will, by statuf Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUN. 136(a). In no event, however, may a d will apply and will expire SIX (6) MO te, cause the application to become A	ICATION. A reply be timely filed  DNTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133).				
Status						
1)⊠ Responsive to communication(s) filed on <u>5/9/</u>	<u> /2007</u> .					
2a)⊠ This action is <b>FINAL</b> . 2b)☐ Thi	This action is FINAL. 2b) This action is non-final.					
3) Since this application is in condition for allows	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under	Ex parte Quayle, 1935 C.	D. 11, 453 O.G. 213.				
Disposition of Claims						
4) Claim(s) 1 and 3-16 is/are pending in the app	lication.					
4a) Of the above claim(s) is/are withdra	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1,3-16</u> is/are rejected.	Claim(s) <u>1,3-16</u> is/are rejected.					
7) Claim(s) is/are objected to.		•				
8) Claim(s) are subject to restriction and/	or election requirement.					
Application Papers						
9) ☐ The specification is objected to by the Examin	er.					
10) The drawing(s) filed on is/are: a) □ ac	cepted or b) dbjected to	by the Examiner.				
Applicant may not request that any objection to the	e drawing(s) be held in abeya	ance. See 37 CFR 1.85(a).				
Replacement drawing sheet(s) including the correct	•	•				
11) ☐ The oath or declaration is objected to by the E	Examiner. Note the attach	ed Office Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreig  a) All b) Some * c) None of:  1. Certified copies of the priority document  2. Certified copies of the priority document  3. Copies of the certified copies of the priority document  application from the International Bureat  * See the attached detailed Office action for a list	nts have been received.  Its have been received in ority documents have bee au (PCT Rule 17.2(a)).	Application No n received in this National Stage				
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)		Summary (PTO-413) o(s)/Mail Date				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 112503.		Informal Patent Application				

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#### **DETAILED ACTION**

1. Claims 1, 3-16 are pending in this application. Claim 2 was canceled in an amendment filed 5/25/2007.

2. The information disclosure statement filed 11/25/03 has been considered by the examiner.

# **Double Patenting**

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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2. Claims 13-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13-16 of copending Application No.10/686577. Although the conflicting claims are not identical, they are not patentably distinct from each other because "arranging the partial encoded data that constitute encoded data of a tile, arranging the partial encoded data toward a terminal in descending order" of the copending application is already suggested in the hierarchical structure constructed by repeatedly forming one tile group from a plurality of adjacent tiles in an image space and another tile group from adjacent tile groups from the instant application.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

## Claim Rejections - 35 USC § 101

1. The rejection of Claims 7, 8, 11, 12, 15, and 16 under 35 U.S.C. 101 is withdrawn in view of the amendment filed 5/25/2007.

### Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimizuka et al. (US 2002/0171743), hereafter "Kimizuka", in view of Ishiguro (US 5,796,839), hereafter "Ishiguro."
- 3. Considering Claims 1 and 6-8, Kamizuka discloses an information processing method of receiving image data compression-coded for each tile ([0012]), repeatedly forming one tile group from a plurality of adjacent tiles in an image space and another tile group from adjacent tile groups ([0048]-[0050], Fig. 3) so as to define a hierarchical structure of the tile groups ([0070], Fig. 8).

Kamizuka does not explicitly disclose generating encryption key information of an uppermost layer for an entire image expressed by encoded data; executing, up to a tile located at a terminal, processing for generating encryption key information for a tile group of a tile located at a lower layer on the basis of encryption key information generated for a tile group located at an upper layer in the hierarchical structure and a one-way function, so as to generate encryption keys for each tile; designating a desired tile group in a desired layer as an object to be encrypted in a tree structure of the tile groups; and executing encryption processing for each tile, each of which is located at a lower layer belonging to the designated tile group, by using an encryption key generated for the tile.

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Ishiguro discloses encrypting the image data (column 1- lines 24-33), generating encryption key information of an uppermost layer for an entire image expressed by encoded data (column 9- lines 45-48); executing, up to a tile located at a terminal, processing for generating encryption key information for a tile group of a tile located at a lower layer on the basis of encryption key information generated for a tile group located at an upper layer in the hierarchical structure (column 3-lines 30-39, column 4- lines 60-67, column 5- lines 1-13) and a one-way function, so as to generate encryption keys for each tile (column 4- lines 25-34); designating a desired tile group in a desired layer as an object to be encrypted in a tree structure of the tile groups (column 5- lines 20-29 and 42-53); and executing encryption processing for each tile, each of which is located at a lower layer belonging to the designated tile group, by using an encryption key generated for the tile (column 5- lines 20-29 and 42-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Kimizuka by the key management system and encryption techniques as taught by Ishiguro for the benefit of managing encryption keys with ease by hierarchically managing encryption keys (Ishiguro- column 2- lines 10-11). Effective management of encryption keys provides for the prevention of illegal use of software or data recorded on a recording medium such as a digital video disk or software or data supplied through a network (Ishiguro- column 1- lines 19-22).

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- 4. Considering **Claim 3**, the combination of Kimizuka and Ishiguro discloses the function generates the key information by using coordinate position information of a tile group, or a tile located at the lower layer (Kimizuka- [0011]-[0013], [0057], Fig. 6).
- 5. Considering **Claim 4**, the combination of Kimizuka and Ishiguro discloses the encryption key information of the uppermost layer is output to a predetermined authentication server on the Internet (Ishiguro- column 4- lines 43-52).
- 6. Considering **Claim 5**, the combination of Kimizuka and Ishiguro discloses a step of displaying the received encoded data as a hierarchical structure of tiles, tile groups, and the desired tile group of the desired layer is designated from the hierarchical structure displayed in the display step (Ishiguro- column 7- lines 24-33)
- 7. Considering Claims 9-12, the combination of Kimizuka and Ishiguro discloses an information processing method of receiving information containing encoded data of both encrypted and unencrypted tiles and reproducing an image (Kimizuka-[0089], [0090], Ishiguro- column 4- lines 60-67, column 5- lines 1-13), comprising: repeatedly forming one tile group from a plurality of adjacent tiles in an image space and another tile group from adjacent tile groups on the basis of the

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received information so as to define a hierarchical structure of the tile groups (Kimizuka- [0048]-[0050], Fig. 3), receiving key information to be used to decrypt a desired tile group of an upper layer containing an encrypted tile (Ishiguro-column 2- lines 16-17); executing, up to a tile, processing for generating key information for a lower layer of the tile group indicated by the key information on the basis of the received key information and a one-way function (Ishiguro-column 4- lines 60-67, column 5- lines 1-13), so as to generate the key information for each tile (Ishiguro-column 4- lines 25-34); and decrypting the encoded data of each encrypted tile by using the key information generated for each tile (Ishiguro-column 8- lines 1-5).

8. Considering Claims 13-16, the combination of Kimizuka and Ishiguro discloses a processing method of a server which is connected to a network for providing a decryption key for an image containing encoded data of both encrypted and unencrypted tiles (Ishiguro- column 9- lines 29-35), comprising: storing basic decryption key information located at an uppermost layer of the image which has the hierarchical structure (Ishiguro- column 6- lines 30-34) constructed by repeatedly forming one tile group from a plurality of adjacent tiles in an image space and another tile group from adjacent tile groups (Kimizuka- [0048]-[0050], Fig. 3); and deriving, when information that designates a tile group in a layer to be decrypted is received from a client on the network (Ishiguro- column 7- lines

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24-38), sequentially decryption key information from the basic decryption key to a lower layer until reaching the designated tile of the designated layer and (Ishiguro- column 4- lines 60-67, column 5- lines 1-13), by using a one-way function (Ishiguro- column 4- lines 25-34), and when decryption key information for the designated tile group is generated, notifying the client of the decryption key information (Ishiguro- column 10- lines 29-36).

### Response to Arguments

1. Applicant's arguments with respect to **Claim 1** have been considered but are moot in view of the new ground(s) of rejection.

### Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randal D. Moran whose telephone number is 571-270-1255. The examiner can normally be reached on M-F: 7:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Randal D. Moran

SUPERVISORY PATENT EXAMINATION TECHNOLOGY CENTER 2100